## REMARKS

### Amendments

*Amendments to the Claims*

Applicant has amended the claims to more particularly point out what Applicant regards as the invention. Specifically, Applicant claims encoding a real time video stream using a parallel macroblock loop comprising two groups of encoding tasks, where the first group does not include variable length encoding tasks and the second group does include variable length encoding length tasks (See, for example, Fig. 3, Paragraphs 0020-0021 of Applicant's specification). A main processor processes the first group substantially concurrently with a co-processor processing the second group. No new matter has been added as a result of these amendments.

### Rejections

*Rejections under 35 U.S.C. § 102(b)*

**Claims 1-2, 7-8, 10, 12-13, 18-19, 21, 23, 28-30, 32 and 37-39**

Claims 1-2, 7-8, 10, 12-13, 18-19, 21, 23, 28-30, 32 and 37-39 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Lam, European Patent Publication 0 782 341 A2. Applicant respectfully submits that Applicant's invention as claimed in claims 1-2, 7-8, 10, 12-13, 18-19, 21, 23, 28-30, 32 and 37-39 is not anticipated by Lam.

Lam discloses creating two independent streams of compressed video using two different video compressors from the same input video stream. One video compressor compresses the video stream using a constant bit-rate algorithm producing a constant bit-rate video stream, while the other video compressor compresses with a variable bit-rate algorithm, producing a variable bit-rate video stream.

In independent claim 1, 12, 28, and 37, Applicant claims encoding a video stream using a parallel macroblock loop comprising two groups of encoding tasks. In contrast, Lam discloses creating two different versions of compressed video using two video compressors. Because Lam discloses each compressor producing an independently compressed video stream, Lam cannot be properly interpreted as disclosing encoding a

video stream using a parallel macroblock loop as claimed. Therefore, Lam does not teach or suggest the claimed element of encoding a video stream using a parallel macroblock loop comprising two groups of encoding tasks as claimed in claim 1, 12, 28, and 37 and claims 2, 7-8, 10, 13, 18-19, 21, 23, 29-30, 32, and 38-29 that depend from them

Accordingly, Applicant respectfully submits that claims 1-2, 7-8, 10, 12-13, 18-19, 21, 23, 28-30, 32 and 37-39 are not anticipated by Lam under 35 U.S.C. § 102(b) and respectfully requests the withdrawal of the rejection of the claims.

***Rejections under 35 U.S.C. § 103***

**Claims 3-4, 6, 9, 14-15, 20, 24-25 and 33-34**

Claims 3-4, 6, 9, 14-15, 20, 24-25 and 33-34 stand rejected under 35 U.S.C. § 103(a) as being obvious over Lam in view of Krishnamurthy, US Patent No. 6,497,607. Applicant respectfully submits that the combination of Lam and Krishnamurthy does not support a *prima facie* case of obviousness because the combination does not teach or suggest each and every limitation of Applicant's invention as claimed.

Krishnamurthy discloses processing video frames by classifying frame regions as important or regions of interests. The important regions receive more and/or different video processing than non-important regions.

Claims 3-4, 6, 9, 14-15, 20, 24-25 and 33-34 depend from claims 1, 12, and 28. Applicant claims in claims 1, 12, 28, and 37, as amended, encoding a video stream using a parallel macroblock loop comprising two groups of encoding tasks. As above, Lam does not teach or suggest this claimed element. Furthermore, because Krishnamurthy is directed towards classifying video frames, Krishnamurthy does not teach or suggest encoding a video stream using a parallel macroblock loop as claimed. As neither Lam nor Krishnamurthy teach or suggest this element as claimed in claims 1, 12, 28 and 37, the combination cannot be interpreted as disclosed claims 1, 12, 28 and 37 and claims 3-4, 6, 9, 14-15, 20, 24-25 and 33-34 that depend on them. Therefore, the combination cannot render obvious Applicant's invention as claimed in claims 3-4, 6, 9, 14-15, 20, 24-25 and 33-34, and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination.

**Claims 5, 16, 26 and 35**

Claims 5, 16, 26 and 35 stand rejected under 35 U.S.C. § 103(a) as being obvious over Lam, Krishnamurthy and Lee, U.S. Patent No. 6,317,460 (previously cited). Applicant respectfully submits that the combination is does not teach each and every element of the invention as claimed in claims 5, 16, 26 and 35.

Lee discloses creating motion vectors used in video compression by interpolating from a different set of motion vectors. Interpolating a motion vector is less computationally intensive than generating the motion vectors for each video frame.

Claims 5, 16, 26 and 35 depend from independent claims 1, 12, 28 and 37, respectively. Applicant claims in claims 1, 12, 28, and 37, as amended, encoding a video stream using a parallel macroblock loop comprising two groups of encoding tasks. As above, neither Lam nor Krishnamurthy teach or suggest this claimed element. Furthermore, because Lee is directed towards interpolating motion vectors, Lee does not teach or suggest encoding a video stream using a parallel macroblock loop as claimed. As none of Lam, Krishnamurthy, or Lee teach or suggest this element as claimed in claims 1, 12, 28 and 37, the combination cannot be interpreted as disclosed claims 1, 12, 28 and 37 and claims 5, 16, 26 and 35 that depend on them. Therefore, the combination cannot render obvious Applicant's invention as claimed in claims 5, 16, 26 and 35, and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination.

**Claims 17, 27, and 36**

Claims 17, 27 and 36 stand rejected under 35 U.S.C. § 103(a) as being obvious over Lam, Krishnamurthy and Chu, U.S. Patent No. 5,367,629. Applicant respectfully submits that the combination is does not teach each and every element of the invention as claimed in claims 17, 27 and 36.

Chu discloses serially compressing video for transmission via a modem with a system that comprises a pre-processing section, an encoder, and a post-processing section.

Claims 17, 27, and 36 depends from independent claims 12, 28, and 37. Applicant claims in claims 12, 28, and 37, as amended, encoding a video stream using a parallel

macroblock loop comprising two groups of encoding tasks. As above, neither Lam nor Krishnamurthy teach or suggest this claimed element. Furthermore, because Chu does not disclose encoding video with multiple processors, Chu does not teach or suggest encoding a video stream using a parallel macroblock loop as claimed. As none of Lam, Krishnamurthy, or Chu, teach or suggest this element as claimed in claims 12, 28, and 37, the combination cannot be interpreted as disclosed claims 12, 28, and 37 and claims 17, 27 and 36 that depend on them. Therefore, the combination cannot render obvious Applicant's invention as claimed in claims 17, 27 and 36, and Applicant respectfully requests the withdrawal of the rejection of the claims under 35 U.S.C. § 103(a) over the combination.

## SUMMARY

Claims 1-10, 12-21, 23-36, 38 and 39 are currently pending. In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Eric Replogle at (408) 720-8300.

**Deposit Account Authorization**

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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